



Jet User Meeting

13 July 2011

Topics

- Status of NESCC - West Virginia
- Status of HFIP Upgrade
- Transition to HSMS at NESCC
- Quotas on /lfs0,/lfs1

National Environmental Security Computing Center

- Compute Platform – SGI
- Tape Library – Oracle SL8500
- HSMS Software – IBM HPSS

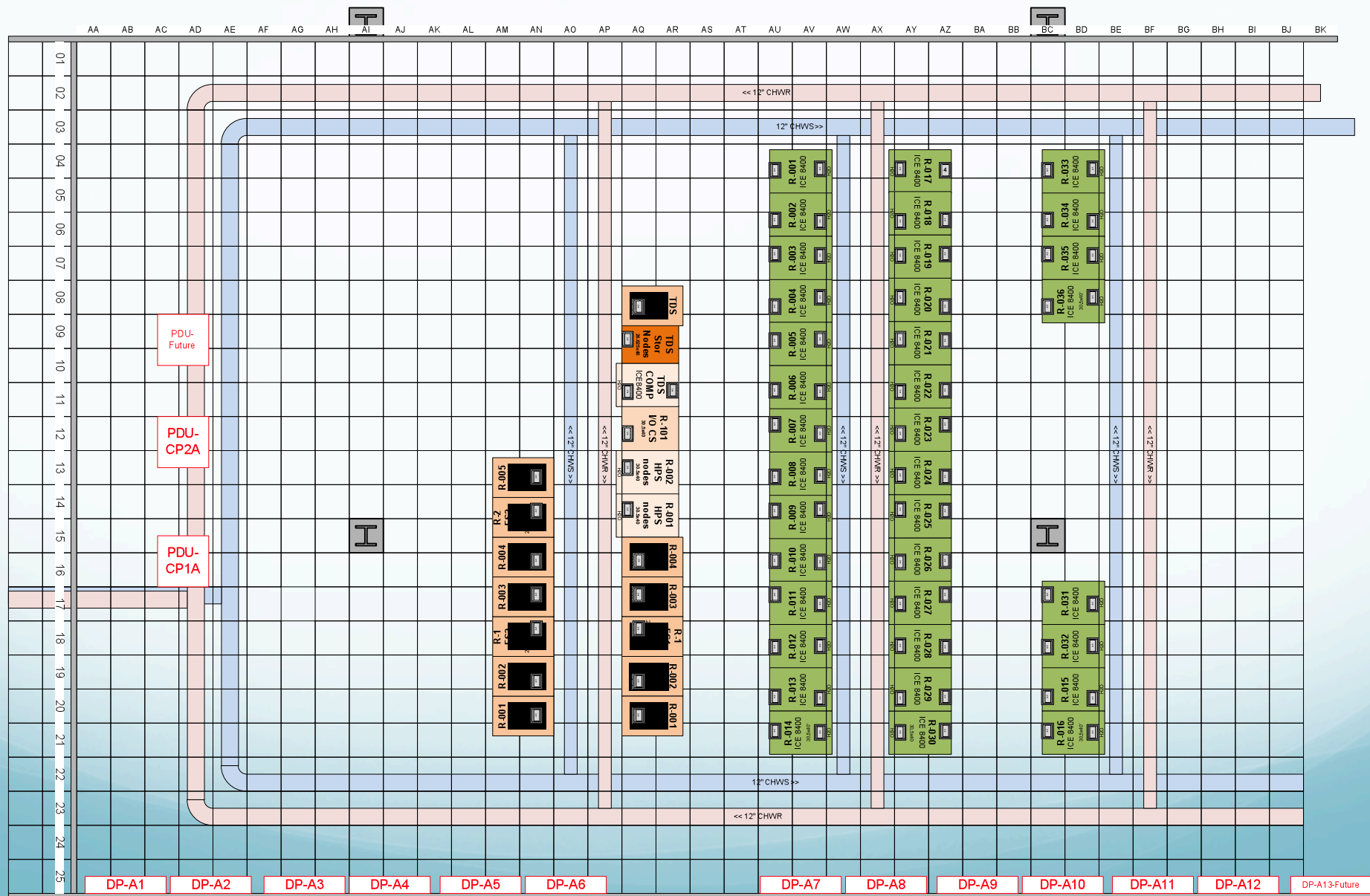


Compute System

- SGI ICE
 - 27648 cores, 3.46 Ghz
 - 2GB/core
 - QDR dual-rail Infiniband
- High Performance Storage, Lustre
 - 5.8 PB
 - 50 GB/s
 - Filesystem will be split into two systems



NESCC - Room L121: 1st Floor – HDDS Compute/HPS



Software Environment

- Intel Compilers
 - PGI will be supported
- SGI and Intel MPI
- 3rd Party software
 - Everything on Jet should be installed on Zeus
- Modules will be used to select different software packages

HSMS At NESCC

- Oracle SL8500 Tape Library
 - 8 active robots
 - 50 PB (uncompressed) capacity
 - 32 tape drives
- HSMS Software – HPSS
- ~ 1 PB first tier disk



Schedule

- HSMS
 - ~Jul 18 – NCEP User Testing
 - ~Jul 31 – Start Acceptance Testing
 - Late August – Start ESRL data migration
- Compute
 - Aug 11: Test and Development System Delivery
 - Aug 24-Sept 16: Production System Delivery
 - Nov 15 - Dec 15: Start Acceptance

HFIP Upgrade

- HFIP system is being upgraded this autumn
 - Additional ~5000 cores to tJet
 - Additional 720 TB to /lfs1
- Currently in the RFP phase waiting for vendor responses
- Availability (we hope) will be late-October

Transition to HSMS at NESCC

- The HSMS data will be migrated to NESCC
- New data will be also written to HSMS
 - We are still working on the plan for this transition. We will have more details in the next month
- The data transition does not affect HFIP data at this time.

Quotas on lfs0/lfs1

- Quotas work on lfs0 and lfs1, we are ready to turn them on.
- What does this mean for the users?
 - It means we will stop sending you emails to clean up your directories.
 - A single user or group will no longer be able to negatively impact all other users
- Steps to implementation
 - We are going to change the group ownership of all files so that /lfsX/project/\$ACCT is owned by \$ACCT
 - Set all directories so newly created directories will be owned by \$ACCT
 - `chmod g+s $DIR $ACCT`

Quotas – What does it mean for the users?

- We will be changing group ownership for all projects
 - This will not affect running jobs
 - We have tested this
- Do not use `-a` or `-p` when transferring files **with cp** from the HSMS because of group ownership.
 - Use `cp “—preserve=timestamps”` if you want to preserve the original times
 - Using `-a` or `-p` will fail
- If you are using MssGet, the `-p` will work.

Checking Quotas

- We will continue to populate the data behind "jetquotas", but the formatting may change slightly as we switch to monitoring group usage rather than directory size. Use that tool until we provide instructions otherwise.
 - Updates will now be much more frequently (once an hour)

Quotas - Schedule

- July 13th – Start converting ownership of files
- July 20th, 8am – Enable quotas

On July 20th, you must have your usage reduced below your quota. After that date, writes to the filesystems will fail if your project is exceeding their quota.



Questions?